



Presentation:

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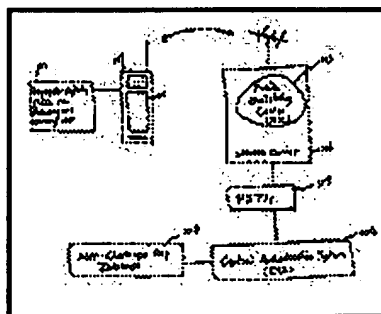
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 (54) METHOD OF USING FINGERPRINTS TO AUTHENTICATE WIRELESS COMMUNICATIONS  
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## Abstract

Disclosed are a system and a method employing a user's *fingerprint* to authenticate a wireless communication. The user's personal *fingerprint* is employed as the secret key in the context of a modified "challengeresponse" scenario. The system includes a *fingerprint* capture module on a mobile personal wireless communication



device (e.g., a wireless *telephone*) and a central authentication system coupled to a conventional mobile switching center. The central authentication system contains information that associates each mobile identification number ("MIN") with a particular user's *fingerprint*. When a wireless communication is to be initiated, the central authentication system engages in a challenge-response authentication with the mobile switching station or the wireless phone using the stored *fingerprint* associated with the MIN through the common air interface. The correct response from the mobile station will only be generated when the user's *fingerprint* entered through the *fingerprint* capture module attached to the mobile station matches the information sent from the central authentication system, and only calls placed from authorized users are connected.



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